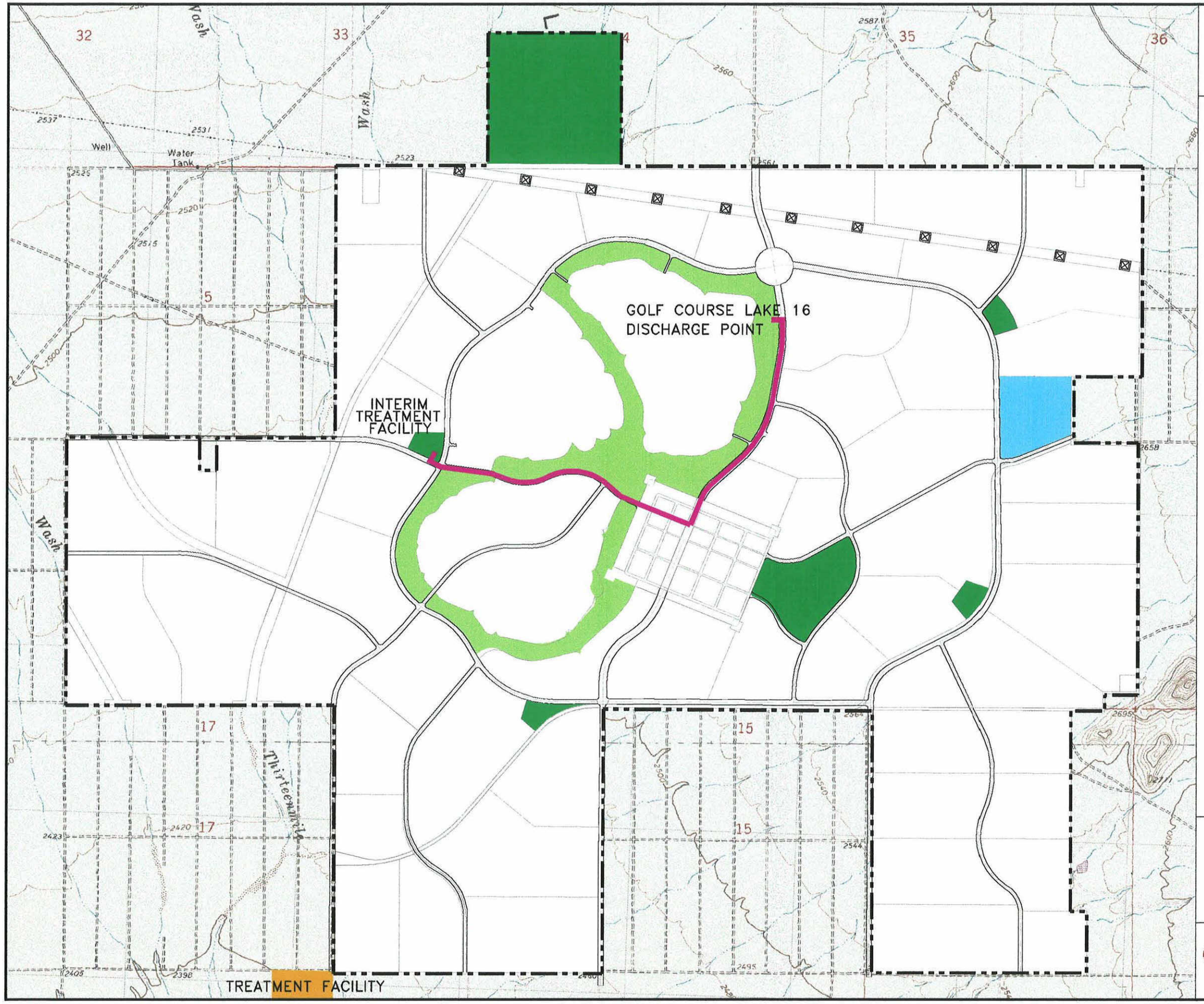


GOLDEN VALLEY RANCH

NORTH

GRAPHIC SCALE

1500 0 1500 3000

(IN FEET)

LEGEND

- STREETS
- PROPOSED RECLAIMED PIPELINE
- PARCEL LINE
- GOLDEN VALLEY RANCH BOUNDARY

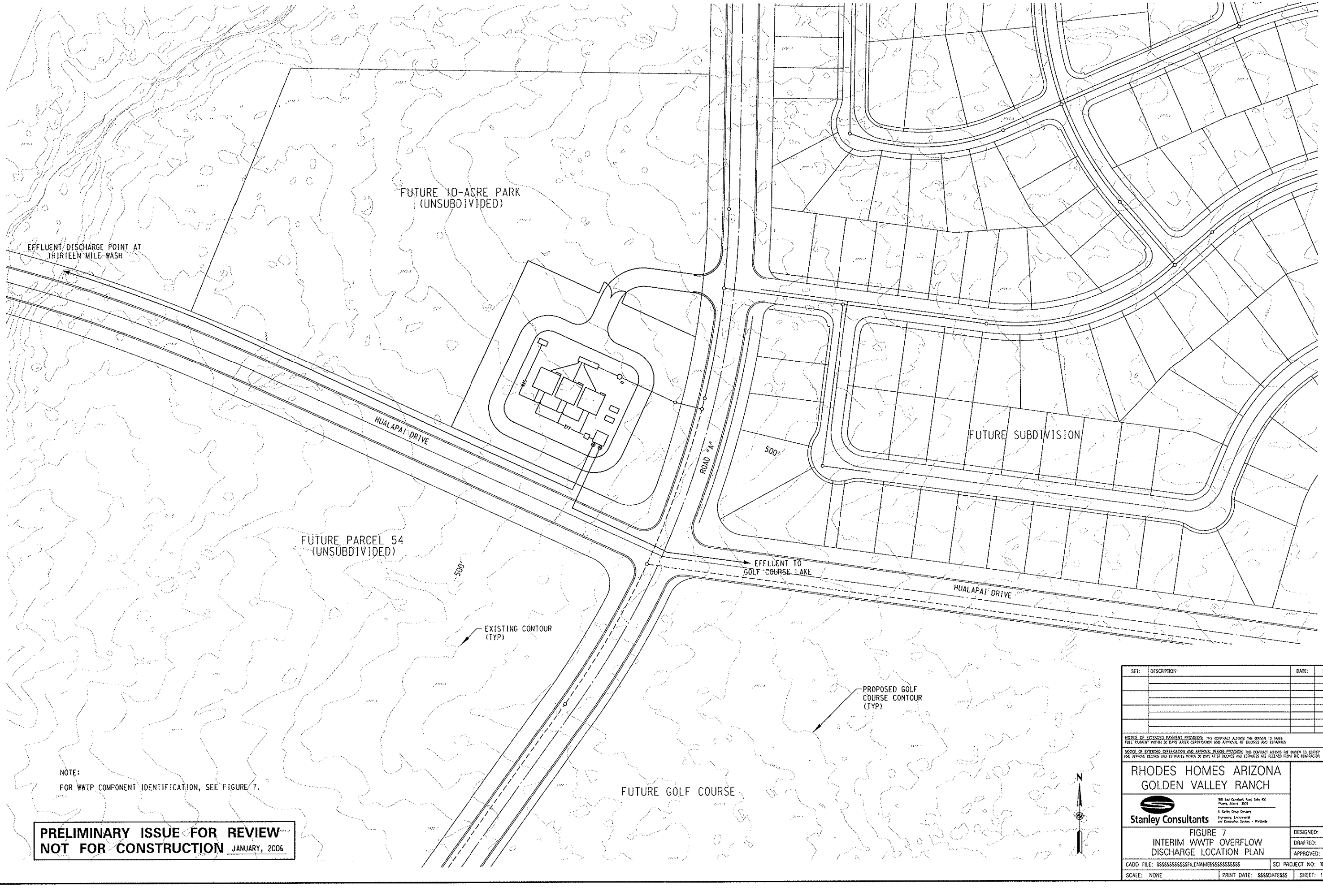
IRRIGATION COMPONENTS

- WW TREATMENT PLANT
- GOLF COURSE
- PARKS
- SCHOOL

FIGURE 6
INTERIM WWTP REUSE
DISCHARGE LOCATION PLAN

MAY 2006

Stanley Consultants INC.
5820 S. EASTERN AVENUE, SUITE 200
LAS VEGAS, NEVADA 89119 (702) 369-9396



NOTE:
FOR WWTP COMPONENT IDENTIFICATION, SEE FIGURE 7.

PRELIMINARY ISSUE FOR REVIEW
NOT FOR CONSTRUCTION JANUARY, 2006

GOLDEN VALLEY RANCH INTERIM WWTP – DESIGN REPORT

SET:	DESCRIPTION:	DATE:	INIT:

NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE FULL PAYMENT WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES

NOTICE OF EXTENDED CERTIFICATION AND APPROVAL PERIOD PROTECTION: THIS CONTRACT ALLOWS THE OWNER TO CERTIFY AND APPROVE BILLINGS AND ESTIMATES WITHIN 30 DAYS AFTER BILLINGS AND ESTIMATES ARE RECEIVED FROM THE CONTRACTOR

V-3

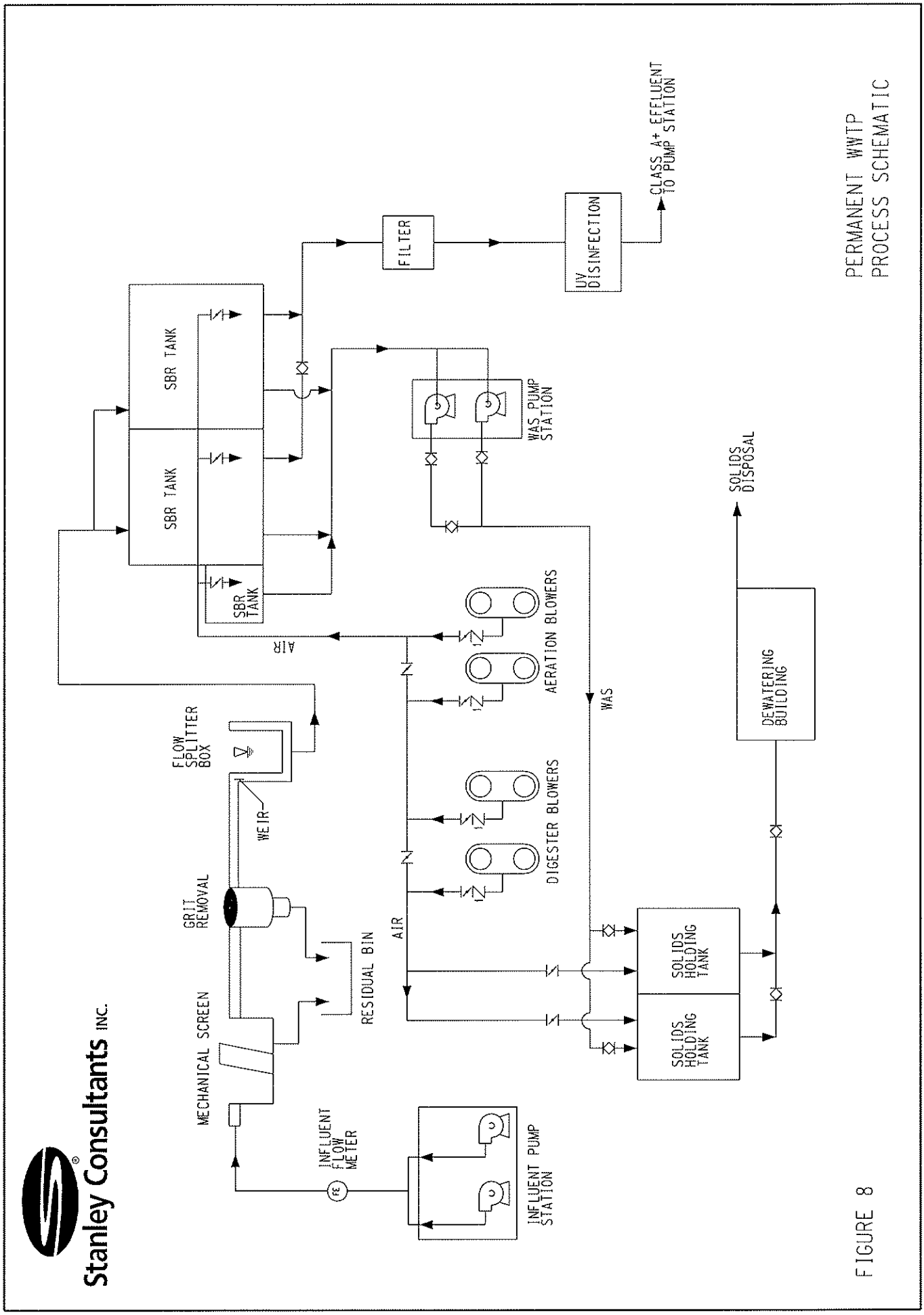
RHODES HOMES ARIZONA
GOLDEN VALLEY RANCH

Stanley Consultants
100 East Camelback Road, Suite 400
Phoenix, Arizona 85004
A Stanley Group Company
Engineering, Environmental
and Construction Services - Worldwide

FIGURE 7
INTERIM WWTP OVERFLOW
DISCHARGE LOCATION PLAN

DESIGNED: DKH
DRAFTED: DKH
APPROVED: BED

CADD FILE: $$$$$$$$$$$$$FILENAME$$$$$$$$$$$$$$ SCI PROJECT NO: 18449.04.02
SCALE: NONE PRINT DATE: $$$$DATE$$$ SHEET: 1 OF


PERMANENT WWTP
PROCESS SCHEMATIC
Stanley Consultants INC.
INFLUENT PUMP STATION
INFLUENT FLOW METER
MECHANICAL SCREEN
GRIT REMOVAL
RESIDUAL BIN
WEIR
FLOW SPLITTER BOX
SBR TANK
SBR TANK
SBR TANK
AIR
AERATION BLOWERS
DIGESTER BLOWERS
AIR
WAS
WAS PUMP STATION
FILTER
UV DISINFECTION
CLASS A+ EFFLUENT TO PUMP STATION
SOLIDS HOLDING TANK
SOLIDS HOLDING TANK
DEWATERING BUILDING
SOLIDS DISPOSAL
FIGURE 8
Q:\18449\06-Studies\06-Drawings\Figures\SAL-fig_10.dgn

Permanent WWTP. The permanent WWTP will consist of the following process elements, as described below and as shown schematically in Figure 8, "Permanent WWTP Process Schematic":

1. Influent pump station, with upstream barscreen protection against construction and other large debris.
2. Influent flow meter.
3. Fine screen to remove most particulates that can have negative impact on the biological process system.
4. Grit removal system to provide further protection to the treatment system.
5. Sequencing Batch Reactor (SBR) biological treatment system.
6. Tertiary filtration system.
7. UV disinfection.
8. Effluent storage and pump station, with overflow discharge to tributary of Thirteen Mile Wash.
9. Solids handling equipment to dewater and dispose of waste solids generated by the WWTP.
10. Full odor control and noise abatement systems, with 250' minimum setbacks.

The capacity of the permanent WWTP will be approximately 9,400,000 gpd, with the WWTP being constructed in phases under the proposed phasing schedule:

- Phase 1 – 1,000,000 gpd SBR treatment, with three (3) SBR treatment tanks designed to treat startup flows as well as flows up to 1,000,000 gpd.
- Phase 2 – additional SBR treatment capacity to provide up to 3,000,000 gpd of treatment.
- Phase 3 – during this phase, a process review will be performed to determine if SBR technology is the proper choice for further treatment. Once this review is complete, the plant will be expanded to a treatment capacity of 5,000,000 gpd.
- Phase 4 - the plant will be expanded to a treatment capacity of 7,000,000 gpd.
- Phase 5 (final phase) - the plant will be expanded to a buildout treatment capacity of 9,400,000 gpd.

It is noted that the phasing of the permanent WWTP does not match exactly with the phasing plan shown in Figure 3. That is because the WWTP expansion phasing must be based on the flow demands of the entire community, not the individual phases of the long-term planning document. Concerning the actual scheduling of the design and construction of future phases of the WWTP, this will be based on new phases being operational prior to existing phases reaching 80% of their rated capacity. By way of example, Phase 2 will be operational prior to Phase 1 flows reaching 800,000 gallons per day.

The site will be owned by Rhodes until completion of Phase 1 construction. When Phase 1 construction is completed, the entire WWTP site will be turned over to PMUC. Rhodes will retain ownership of the golf course, but will turn ownership of parks and other green space to the appropriate HOAs.

The WWTP will be designed to provide Class A+ effluent as defined by AAC Title 18, Chapter 9, Article 3, and to meet all AZPDES discharge permit requirements. The effluent will be used to water the golf course and other community park and green space that is economically viable to reach via the reclaimed water system. Excess effluent will be routed for discharge to a tributary of Thirteen Mile Wash. The approximate location of this discharge is shown on Figure 9, "GV Ranch Backbone Sewer Collection System".

There are no anticipated discharges of sewage sludge to the environment. Sludge from the permanent WWTP may initially be hauled in liquid form under the identical process to the interim WWTP, but as flows increase during Phase 1 operation there will be a solids handling process in place to thicken and dewater the sludge. This process will result in "dry cake" sludge that will be trucked to a landfill, with the liquid generated from the sludge drying process recycled back to the treatment plant. The process will involve mechanical dewatering methods; no sludge drying beds will be implemented. Any waste sludge and solids will be tested for hazardous materials and for passage of the paint filter test, in accordance with CFR 503.

Additional Design Considerations

Sewer Collection System Design. The GV Ranch collection system has been designed to use the natural slope of the development to deliver sewage to both the interim WWTP and the permanent WWTP via gravity. The backbone sewer collection system is shown in Figure 9, "GV Ranch Backbone Sewer Collection System". The only potential exception is parcels west of Thirteen Mile Wash (roughly west of Ramada Road and north of Chemehuevi Drive); this will be reviewed once the final elevation of the Wash is published. Rhodes is aware that a low-head pump station may be required to move flows from this area to the gravity portion of the collection system. It in anticipated that only one lift station would be required for this area.

The system has been sized based on the flow and peaking data presented in Tables 2 through 4. Each reach of sewer line is sized to transmit peak hour flow to the WWTPs from their collection areas as well as any flows conveyed from upstream portions of the system. The system is also sized to account for potential flows from the City of Kingman Downtown Plant and from other Rhodes' owned sites north of GV Ranch (see Figure 9). The flows from sites north of GV Ranch are not included in the WWTP flows at this time, but Rhodes believes it is prudent design to oversize the collection system to account for these flows.

Basic sewer collection system design criteria are as follows:

- Minimum pipe diameter = 8"
- Minimum slope = 0.4%
- Minimum velocity = 2 fps @ 1/2 full
- Maximum manhole distance, 8" to 12" sewer = 450'
- Maximum manhole distance, 12" to 18" sewer = 500'
- Maximum manhole distance, 18" and greater = 670'

Stormwater Collection System design. The Golden Valley Ranch storm drain collection system is comprised mainly of the existing wash system and a depressed golf course. Existing flows are generally from the Northeast to the Southwest. The site is traversed by the Thirteen Mile Wash, the Cerbat Wash and the many branches of the